



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,681	11/17/2003	Lisa Craig	51204/THD/D279	4549
23363	7590	11/29/2005	EXAMINER	
CHRISTIE, PARKER & HALE, LLP			DONAHOE, CASEY D	
PO BOX 7068			ART UNIT	
PASADENA, CA 91109-7068			PAPER NUMBER	

3732

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/715,681	Applicant(s) CRAIG, LISA	
	Examiner Casey Donahoe	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/3/04</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: lower ledge 21 (par.29), ends 43 (par. 34), light assembly 53 (par. 40, 45), diffuser filter 69 (par. 49), edge 110 (par. 50), opening 114 (par. 53), fan bracket 118, light head screen bracket 120, rear seat 122, igniter bracket 124, thermal fuse 126 (all par. 54), pin connector 128 (par. 55), and support stubs 106 (par. 65).

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "54" has been used to designate both the lamp assembly (par. 35) and the light head (par. 40).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 21 is objected to because of the following informalities: "road" should be "rod". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 7, 8, 12, 16- 18, 21, 22, 25, 26, 29, 32, and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Pilaro et al. (U.S. 2005/0084826).

Regarding claim 1, Pilaro et al. discloses a method for tooth whitening comprising: applying a dental whitening composition to the teeth and illuminating the teeth with light from a lamp assembly, wherein the lamp assembly is maintained in a constant position relative to the teeth by a lamp guide/gap regulating device, coupled to the patient and to the lamp (paragraph 90).

Regarding claims 2, 18, and 26, a lip retractor is used to retract the patient's lips (paragraph 79).

Regarding claim 7, the lamp assembly comprises a lamp head and an integrated power assembly mounted on a light stand (paragraphs 92-93). Furthermore, the delivery system comprises a flexible arm (paragraph 94) mounted to the support structure, thus creating an adjustable hinge.

Regarding claims 12 and 22, the tooth bleaching composition disclosed comprises an oxidizing agent (see claim 69). Furthermore, the light assembly comprises a light aperture and an engagement surface for the gap regulating device / spacer (paragraph 90).

Regarding claims 8, 16, and 29, the lamp may be a mercury short arc lamp, which includes mercury gas, or a metal halide lamp (paragraph 99).

Regarding claim 17, the gap regulating device comprises a rod (paragraph 89).

Regarding claims 21 and 32, the gap regulating device comprises a foam bite pad connected to the spacer (paragraph 90).

Regarding claim 25, cotton rolls are disclosed (paragraph 85).

Regarding claim 34, the light is disclosed to be activated for three 20-minute cycles (paragraph 103).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pilaro et al.

Pilaro et al. discloses a gap regulating device including a spacer bar attached to the lamp head, but fail to disclose the specific structural details of the connection. Given that the spacer is a bar, the connection means inherently must include some type of bore, boss, or an art-recognized equivalent on the lamp's engagement surface in order to secure the connection. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a bore or boss on the lamp engagement surface disclosed by Pilaro et al. to secure the gap regulating device.

Claims 6, 13-15, 23, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pilaro et al. in view of Ostler (U.S. 6,116,900).

Pilaro et al. discloses a tooth whitening system but fails to disclose the specific compositions of the tooth whitening formula used. Ostler discloses a two part composition, a bleaching gel and an activator gel, stored in a dual-barrel syringe. The bleaching gel comprises hydrogen peroxide (column 1, line 22), and the activator gel comprises water (column 8, line 29). Chemical activation and light activation are disclosed to speed up the whitening process (column 1, lines 52-54). It would have been obvious to one of ordinary skill in the art at the time of the invention to use this tooth whitening composition contained in a dual-barrel syringe in the system disclosed by Pilaro et al. to speed up the tooth whitening process.

Claims 3, 4, 19, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pilaro et al. in view of Schroer (U.S. 3,916,880).

Pilaro et al. disclose using a lip retractor to keep the lips and gums away from the teeth, but fail to disclose the specifics of the retractor, including the arcuate races, cross-bar, and tongue guard. Schroer discloses a retractor comprising two arcuate races biased outwardly by a cross bar which simultaneously retains the tongue in order to hold the patient's cheeks and lips away from the teeth and to protect the tongue. It would have been obvious to one of ordinary skill in the art at the time of the invention to use such a retractor in the system disclosed by Pilaro et al. so that the tongue is protected from the tooth whitening formula and the cheeks are biased away from the teeth during application and curing of the formula.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pilaro et al. in view of Baughman (U.S. 2004/0076926).

Pilaro et al. disclose using a lip retractor to keep the lips and gums away from the teeth, but fail to disclose the specifics of the retractor, including four cheek plates. Baughman discloses a retractor specifically for use with tooth whitener cured by an external light source. The retractor (Fig. 1) has four cheek plates, which protect the lips as well as reflect light to the teeth. It would have been obvious to one of ordinary skill in the art at the time of the invention to use such a retractor in the system disclosed by Pilaro et al. in order to protect the lips from the radiation of the curing light and to maximize the light hitting the teeth surfaces.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pilaro et al. in view of Becker et al. (U.S. 4,952,143).

Pilaro et al. disclose the tooth whitening system as described earlier, but fail to disclose a retractor cover over the lip retractor. Becker et al. disclose a cover (D in Fig. 5), which protects the patient's mouth from the caustic bleaching solution. It would have been obvious to one of ordinary skill in the art at the time of the invention to use this cover in addition to the lip retractor disclosed by Pilaro et al. in order to provide protection to more areas of the face against the harmful effects of the whitening formula.

Claims 9 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pilaro et al. in view of Ollett et al. (U.S. 6,880,954).

Pilaro et al. disclose a tooth whitening system including a lamp, dichroic filter, and preferred wavelength of emitted light, but fail to particularly disclose a UV or IR filter. Ollett et al. disclose a photocuring system using a mercury-arc lamp, which incorporates both a UV band pass filter and IR filter for reducing heat (column 1, lines 29-35). It is well known in the art to minimize the UV spectrum transmitted due to the harmful effects of UV radiation. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate UV and IR filters into the lamp assembly disclosed by Pilaro et al., in order to reduce the harmful effects of the UV radiation and the heat caused by the Infrared radiation.

Art Unit: 3732

Claims 11 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pilaro et al. in view of Gemunder et al. (U.S. 6,485,301).

Pilaro et al. disclose a tooth whitening system including a lamp assembly, but fail to disclose a diffuser filter. Gemunder et al. disclose a photocuring light assembly including a diffuser filter (42 in Fig. 2) in order to create a uniform light beam. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a diffuser filter into the lamp assembly disclosed by Pilaro et al. in order to provide a more concentrated light beam, which would focus more of the light upon the targeted teeth, making the process more efficient.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jensen et al. (U.S. 6,391,283), West et al. (U.S. 6,733,290), and Jacob (U.S. 6,514,075) are made of record.

Art Unit: 3732


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Casey Donahoe whose telephone number is (571) 272-2812. The examiner can normally be reached on Monday - Thursday (7:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272 -4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


10/28/05

Casey Donahoe
Examiner
Art Unit 3732


Ralph A. Lewis
Primary Examiner
Au 3732